

## ABSTRACT

A system and method for increasing transmission distance and/or transmission data rates using tedons and an encoding scheme to reduce the number of ones in a data signal is described. The method for increasing transmission distance and transmission data rate of a fiber optical communications link using tedons comprises the steps of encoding a data signal to be transmitted using an encoding scheme that reduces a number of ones in said data signal, transmitting said encoded data signal over said fiber optical communications link, receiving said encoded data signal and decoding said encoded data signal. The system for increasing transmission distance and transmission data rate of a fiber optical communications link using tedons comprises means for encoding a data signal to be transmitted using an encoding scheme that reduces a number of ones in said data signal, means for transmitting said encoded data signal over said fiber optical communications link, means for receiving said encoded data signal and means for decoding said encoded data signal.